

5' T CAG TTT CCT GCC AAT GAC GCT GGG GCA GCC GGG GCA GCC GCG CGG 54  
 9 18 27 36 45  
 63 TCA CCC CGC CCC CAG GCC CAC ACT AAG GGT GTC CGC GGC CTG CCC TCC AGG CGG 108  
 72 81 90 99  
 117 AGG AGC CCG GAC TGC GGA AGG ATG GAG CTG GCC GCC GGA AGC TTC TCG GAG GAG 162  
 126 135 144 153  
 171 CAG TTC TGG GAG GCC TGC TGC GGC GAG CTC CAG CAG CCC GCT CTG GCC GGG GCC GAC 216  
 180 189 198 207  
 225 TGG CAG CTC CTA GTG GAG ACC TCG GGC ATC AGC ATC TAC CGG CTG CTG GAC AAG 270  
 234 243 252 261  
 279 AAG ACT GGA CTT TAT GAG TAT AAA GTC TTT GGT GTT CTG GAG GAC TGC TCA CCA 324  
 288 297 306 315  
 333 ACT CTA CTG GCA GAC ATC TAT ATG GAC TCA GAT TAC AGA AAA CAA TGG GAC CAG 378  
 342 351 360 369  
 387 TAT GTT AAA GAA GAA CTC TAT GAA CAA GAA TGC AAC GGA GAG ACT GTG GTC TAC TGG 432  
 396 405 414 423  
 432 Y V K E L Y E Q E C N G E T V V Y W

FIGURE 1A

441	GAA GTG AAG TAC CCT TTT CCC ATG TCC AAC AGA GAC TAT GTC TAC CTT CGG CAG	450	459	468	477	486
E V K	Y P F	M S N R D Y V	L R Q			
495	CGG CGA GAC CTG GAC ATG GAA GGG AGG AAG ATC CAT GTG ATC CTG GCC CGG AGC	504	513	522	531	540
R D L	M E G R K I H V I L A R S					
549	ACC TCC ATG CCT CAG CTT GGC GAG AGG TCT GGG GTG ATC CGG GTG AAG CAA TAC	558	567	576	585	594
T S M	P Q L G E R S G V I R V K Q Y					
603	AAG CAG AGC CTG GCG ATT GAG AGT GAC GGC AAG AAG GGG AGC AAA GTT TTC ATG	612	621	630	639	648
K Q S	L A I E S D G K K G S K V F M					
657	TAT TAC TTC GAT AAC CCG GGT GGC CAA ATT CCG TCC TGG CTC ATT AAC TGG GCC	666	675	684	693	702
Y F D	N P G G Q I P S W L I N W A					
711	GCC AAG AAT GGA GTT CCT AAC TTC TTG AAA GAC ATG GCA AGA GCC TGT CAG AAC	720	729	738	747	756
A K N	G V P N F L K D M A R A C Q N					
765	TAC CTC AAG AAA ACC TAA GAA AGA GAA CTG GGA ACA TTG CAT CCA TGG GTT GAT	774	783	792	801	810
Y L K	K T					

FIGURE 1B

819	828	837	846	855	864
GTC TCT GGA AGT GCA ACC ACC CAA TGT CTC TGG AAG TGC CAC CTG GAA GTG CCA					
873	882	891	900	909	918
CCT GGA AGT GTC TCT GGA AGA GCA CCC ACC ACT GTT CAG CCT TCC CCT GCT GTT					
927	936	945	954	963	972
TCT GTC TTC AGA GGC CTA CAC ACT ACC ACA TCC TTT CTA AGC ATG TTT GCC TGA					
981	990	999	1008	1017	1026
CAT CCA GCT CAC TCG TCT GCT TCC TTT CTC GCT CCC CCC CAT CCT GGT GGT GGT					
1035	1044	1053	1062	1071	1080
GCT GCC TTC TTC TAC AGT TCA ATA TGG GGC AGA CTA GGG AAA CCT TTG CTT GCT					
1089	1098	1107	1116	1125	1134
TAC TAT TAG GAG GGG AAG TCT TCA GTA GGG AAC ACG ATC ATT CCA TTG TGC AAT					
1143	1152	1161	1170	1179	1188
TTT ACG GGG ATG GGT GGG CGG AGG GAC ACA ACA AAA TTT AAG AAT GAC TAT TTG					
1197	1206	1215	1224	1233	1242
GGC GGG CTG GCT CTT TTG CAG CTT GTG ATT TCT TCC AGC TTG GGA GGG GCT GCT					
1251	1260	1269	1278	1287	1296
GGA AGT GGC ATT TCG TTC AGA GCT GAC TTT CAG TGC ACC CAA ACT GGA TGA CGT					
1305	1314	1323	1332	1341	1350
GCC AAT GTC CAT TTG CCT TAT GCT TTG TGG AGC TGA TTA GGC TGG GAT TTG AGG					

FIGURE 1C

1359	1368	1377	1386	1395	1404
TGA TAA TCC AGT AAG TCT TTC CTC GTT CCT ACT TGT GGA GGA TCA GTA GCT GTT					
1413	1422	1431	1440	1449	1458
ATG ATG CCA GAC CAT TTG GAG AAG TAT CAG AGG CCT GAC CGG ACA CAT AAT ACG					
1467	1476	1485	1494	1503	1512
ACA ACC ACA TTT TTC CTC ATC ATC CAT GAG GAA ATG GAT GAT TCT TTT CCA					
1521	1530	1539	1548	1557	1566
TAT GTC ACT GGG GGA AAG GCT GCC TGT ACC TCT CAA GCT TTG CAT TTT ACT GGA					
1575	1584	1593	1602	1611	1620
AAC TGA GGC GTC AAG ATG GCT GTG GCC AGC TAG CAA AAG CAA AGA TGC TTT GTG					
1629	1638	1647	1656	1665	1674
CAT AGC CTT GTG AAA AAG TAT CTT TCT ATG CAA TAA GAT GAA TTT TCC TCC CAG					
1683	1692	1701	1710	1719	1728
AAT ATT TAG AAA TGT AGA AGG GAT AAC AGT TCA CAG CCA GGT AAA ATT TAA CTG					
1737	1746	1755	1764	1773	1782
GTG GCT TAA TGA CTC TGC ACC TTT TTC TCA GGA ATT CTG CCT AAG TTG TCT GCC					
1791	1800	1809	1818	1827	1836
TTT TCT ACC ACC AAA AAG ACT TTT AGT TTT CTA TGC TTT CTC CTG AAT TTT GGT					
1845	1854	1863	1872	1881	1890
AGG GTA AGG TAT TTC TAT GTC AAA GGC ACA GCC TTG ATG ATC TCA GGG AAA AAT					

FIGURE 1D

1899	1908	1917	1926	1935	1944
TTT AAT CAC TGT GTA TAA TGA TAC TGA ACC TTG ATT AAT AAC AGA AAT TCA GGA					
1953	1962	1971	1980	1989	1998
TGT AAA GCC ACA GAA TGG GAT TTA TTA ATG TGG GAT ACC TCA GAC TGT TTG TTT					
2007	2016	2025	2034	2043	2052
TCT TTC TGG GAA GAA AAG TGT GTT CTA TAA TGA ATA AAT ATA GAG TGG TTT TTA					

A 3'

FIGURE 1E

5'	AGT	ACT	TGT	GTC	CGG	GTG	GTG	GAC	TGG	ATT	CGC	TGC	GGA	GCC	CTG	GAA	GCT	GCC
	9		18		27		36		45		54							
	TGT	GTC	CGG	GTG	GTG	GAC	TGG	ATG	CGC	TGC	GGA	GCC	CTG	GAA	GCT	GCC		
	63		72		81		90		99		108							
	CCT	TCT	CCC	TGT	GCT	TAA	CCA	GAG	GTG	CCC	ATG	GGT	TGG	ACA	ATG	AGG	CTG	
	TTT									M	G	W	T	M	R	L		
	117		126		135		144		153		162							
	GCA	GCA	CTG	TTA	CTG	GGT	CTC	ATG	ATG	GTG	GTC	ACT	GGA	GAC	GAG	GAT		
	V	A	A	L	L	L	G	L	M	M	V	V	T	G	D	E	D	
	171		180		189		198		207		216							
	AGC	CCG	TGT	GCC	CAT	GAG	GCC	CTC	TTG	GAC	GAG	GAC	ACC	CTC	TTT	TGC		
	E	N	S	P	C	A	H	E	A	L	L	D	E	D	T	F	C	
	225		234		243		252		261		270							
	CTT	GAA	GTT	TTC	TAC	CCA	GAG	TTG	GGG	AAC	ATT	GGC	TGC	AAG	GTT	GTT		
	Q	G	L	E	V	F	Y	P	E	L	G	I	G	C	K	V	V	
	279		288		297		306		315		324							
	TGT	AAC	AAC	TAC	AGA	CAG	AAG	ATC	ACC	TCC	TGG	ATG	GAG	CCG	ATA	GTC		
	P	D	C	N	N	Y	R	Q	K	I	T	S	W	E	P	I	V	
	333		342		351		360		369		378							
	CCG	GGG	GCC	GTG	GAC	GGC	GCA	ACC	TAT	ATC	CTG	GTG	ATG	GTG	GAT	CCA		
	K	F	P	G	A	V	D	G	A	T	Y	I	L	V	M	V	D	P

15

387	GAT	GCC	CCT	AGC	AGA	GCA	CCC	AGA	AGA	CAG	AGA	TTC	TGG	AGA	CAT	TGG	CTG	GTA	432
	D	A	P	S	R	A	E	P	R	Q	R	F	W	R	H	W	L	V	
441	ACA	GAT	ATC	AAG	GGC	GCC	GAC	CTG	AAG	GAA	GGG	AAG	ATT	CAG	GGC	CAG	GAG	TTA	486
	T	D	I	K	G	A	D	L	K	E	G	K	I	Q	G	Q	E	L	
495	TCA	GCC	TAC	CAG	GCT	CCC	TCC	CCA	CCG	GCA	CAC	AGT	GGC	TTC	CAT	CGC	TAC	CAG	540
	S	A	Y	Q	A	P	S	P	P	A	H	S	G	F	H	R	Y	Q	
549	TTC	TTT	GTC	TAT	CTT	CAG	GAA	GGA	AAA	GTC	ATC	TCT	CTC	CTT	CCC	AAG	GAA	AAC	594
	F	V	Y	L	Q	Q	E	G	K	V	I	S	L	L	P	K	E	N	
603	AAA	ACT	CGA	GGC	TCT	TGG	AAA	ATG	GAC	AGA	TTT	CTG	AAC	CGC	TTC	CAC	CTG	GGC	648
	K	T	R	G	S	W	K	M	D	R	F	L	N	R	F	H	L	G	
657	GAA	CCT	GAA	GCA	AGC	ACC	CAG	TTC	ATG	ACC	CAG	AAC	TAC	CAG	GAC	TCA	CCA	ACC	702
	E	P	E	A	S	T	Q	F	M	T	Q	N	Y	Q	D	S	P	T	
711	CTC	CAG	GCT	CCC	AGA	GGA	AGG	GCC	AGC	GAG	CCC	AAG	CAC	AAA	AAC	CAG	GCG	GAG	756
	L	Q	A	P	R	G	R	A	S	E	P	K	H	K	N	Q	A	E	

FIGURE 2B

765	774	783	792	801	810
ATA GCT GCC TGC TAG ATA GCC GGC TTT GCC ATC CGG GCA TGT GGC CAC ACT GCC					
I A A C					
819	828	837	846	855	864
CAC CAC CGA CGA TGT GGG TAT GGA ACC CCC TCT GGA TAC AGA ACC CCT TCT TTT					
873	882	891	900		
CCA AAT AAA AAA AAA ATC ATC CAG GGC TTG GTG CTT TGT 3'					

FIGURE 2C



1	M E L A A G S F S E E Q F W E A C A E L	3014759
1	M D P G A G A F S E E Q F R E A C A E L	GI 897693
21	Q Q P A L A G A D W Q L L V E T S G I S	3014759
21	Q R P A L S G A A W E L L V E T Q G I S	GI 897693
41	I Y R L L D K K T G L Y E Y K V F G V L	3014759
41	V Y R L L D Q Q T G L Y A Y K V F G V L	GI 897693
61	E D C S P T L L A D I Y M D S D Y R K Q	3014759
61	E D C L P D L L A D V Y M D L A Y R K Q	GI 897693
81	W D Q Y V K E L Y E Q E C N G E T V V Y	3014759
81	W D Q Y V K E L Y E K E C S G E T V V Y	GI 897693
101	W E V K Y P F P M S N R D Y V Y L R Q R	3014759
101	W Q V K Y P F P M S N R D Y V Y V R Q R	GI 897693
121	R D L D M E G R K I H V I L A R S T S M	3014759
121	Q E L D F E G Q K V H V I L A Q S T S E	GI 897693
141	P Q L G E R S G V I R V K Q Y K Q S L A	3014759
141	P Q F P E K S G V I R V K H Y K Q R L A	GI 897693
161	I E S D G K K G S K V F M Y Y F D N P G	3014759
161	I Q S D G K K G S K V F M Y Y F D N P G	GI 897693
181	G Q I P S W L I N W A A K N G V P N F L	3014759
181	G Q I P S W V I N W A A K N G V P N F L	GI 897693
201	K D M A R A C Q N Y L K K T	3014759
201	K D M V K A C Q N Y - K K T	GI 897693

FIGURE 3

1	M G W T M R L V T A A L L L G L M M V V	3126479
1	V - - - - - V S T S P T K L - - - - -	GI 1143527
21	T G D E D E N S P C A H E A L L D E D T	3126479
10	- - - - - - - - - - - - - - - - -	GI 1143527
41	L F C Q G L E V F Y P E L G - N I G C K	3126479
10	- - - - - V N V S Y N N L T V N L G N E	GI 1143527
60	V V P D C N N Y R Q K I T S W M E P I V	3126479
25	L T P T Q V K N Q P T K V S W - - - - -	GI 1143527
80	K F P G A V D G A T Y I L V M V D P D A	3126479
40	- - - D A E P G A L Y T L V M T D P D A	GI 1143527
100	P S R A E P R Q R F W R H W L V T D I K	3126479
57	P S R K N P V F R E W H H W L I I N I S	GI 1143527
120	G A D L K E G K I Q G Q E L S A Y Q A P	3126479
77	G Q N V S S G T V - - - - L S D Y I G S	GI 1143527
140	S P P A H S G F H R Y Q F F V Y L Q E G	3126479
93	G P P K G T G L H R Y V F L V Y K Q P G	GI 1143527
160	K V I S L L P K E N K T R G S W K M D R	3126479
113	S I T D - - T Q H G G N R P N F K V M D	GI 1143527
180	F L N R F H L G E P E A S T Q F M T Q N	3126479
131	F A N K H H L G N P V A G N F F - - - -	GI 1143527
200	Y Q D S P T L Q A P R G R A S E P K H K	3126479
147	- - - - - - - - - - - - - - Q A K H E	GI 1143527
220	N Q A E I A A C	3126479
152	D	GI 1143527

FIGURE 4

09379401-061401

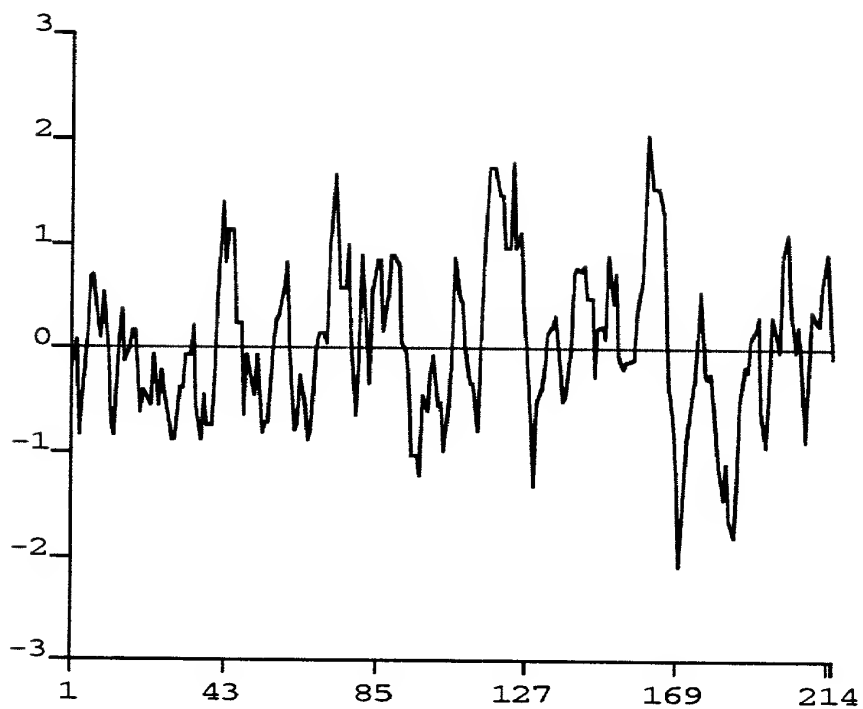


FIGURE 5A

09079401.054101  
T0790 T045/250

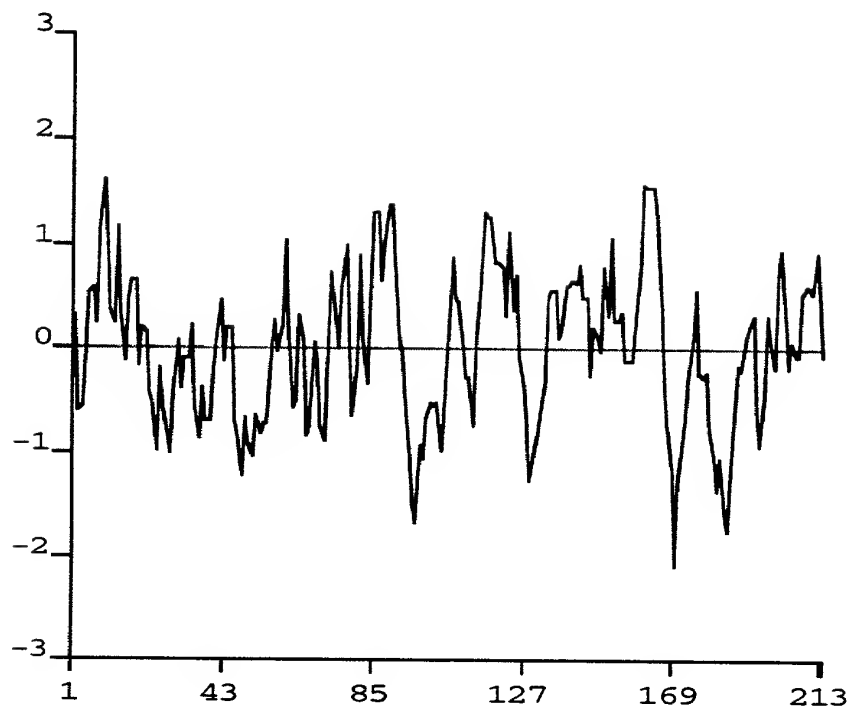


FIGURE 5B